



Forensic Dentistry



By
DropBooks

Amany Nour El-Din

Forensic odontology:

- ❖ Application of dental science to administration of the law & furtherance of justice.**

It involves:

- ➡ **Record preparation**
- ➡ **Identification**
- ➡ **Age assessment**
- ➡ **Bite mark investigation**
- ➡ **Human abuse**
- ➡ **Lip print**
- ➡ **Legal aspect**

- **Record Management:**

- **It includes:** *pathological report, radiographs, clinical photograph of the patient, treatment plane*
- **Records should be signed by the patient**
- **Any change made in the record should not be erased but should be crossed on**
- **Record should be kept for 7-10 y. In pediatric patients, records should be maintained until age of maturity**

- **Identification:**

- **Dental comparison:**

1. Number of teeth present & teeth lost
2. Arrangement, irregularities , caries, fillings
bridges, denture.....etc
3. Exact shape of edentulous arch
4. Faulty development
5. Faulty alignment
6. Stain
7. Missing teeth

- **Technique for Identification in Mass Disaster**

- **X-Ray:**

Age, occupation, identification, cause of death

- **UV Rays**

Tattoo marks, scars, washed blood

- **Postmortem Serology**

- **DNA**

- **Age Assessment:**

- **Visual observation**

- **Radiograph**

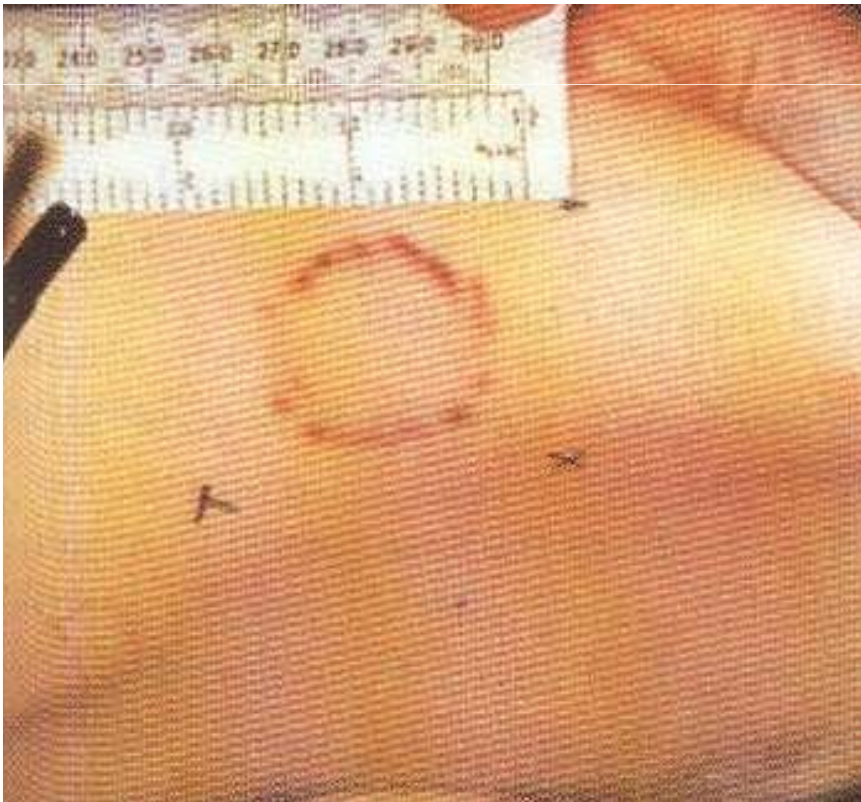
- **Histological**

- **Physical & chemical analysis**

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Bite Marks

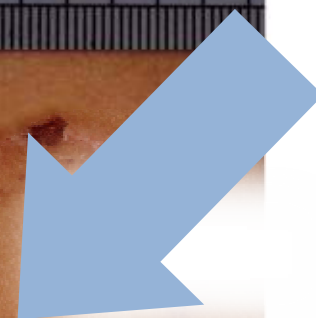
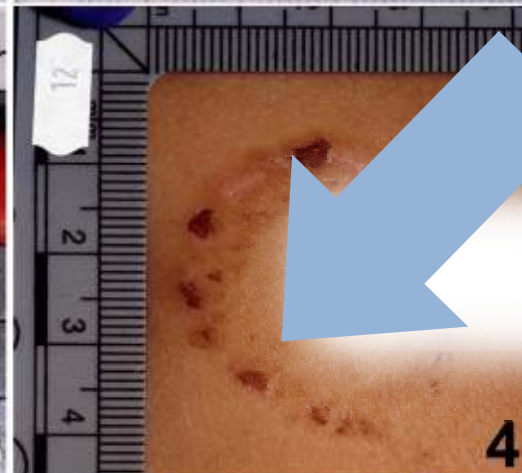
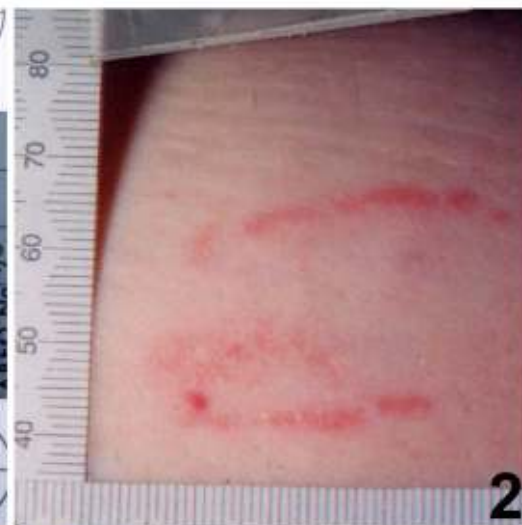
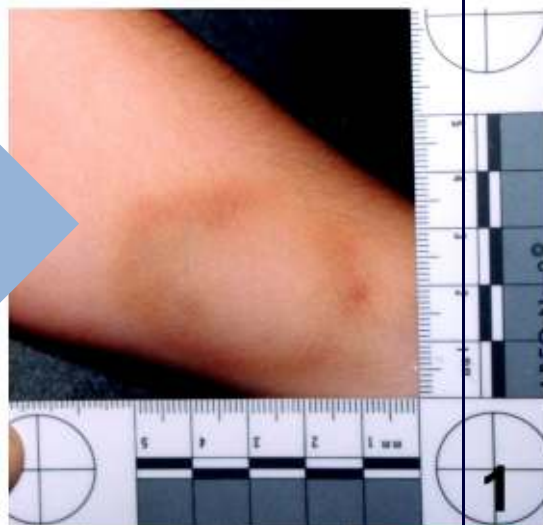
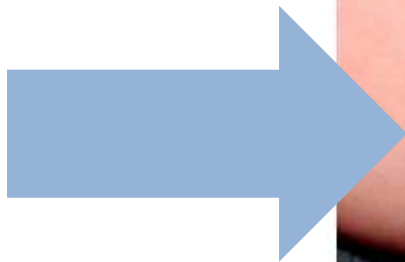
- Interpolation of teeth on animate or inanimate objects



Importance of bite marks:

- Permit precise identification
- Bite marks are always contaminated by saliva





Range of bite mark severity scale

1-Very mild bruising, no individual tooth marks present, diffuse arches visible, may be caused by something other than teeth low forensic significance



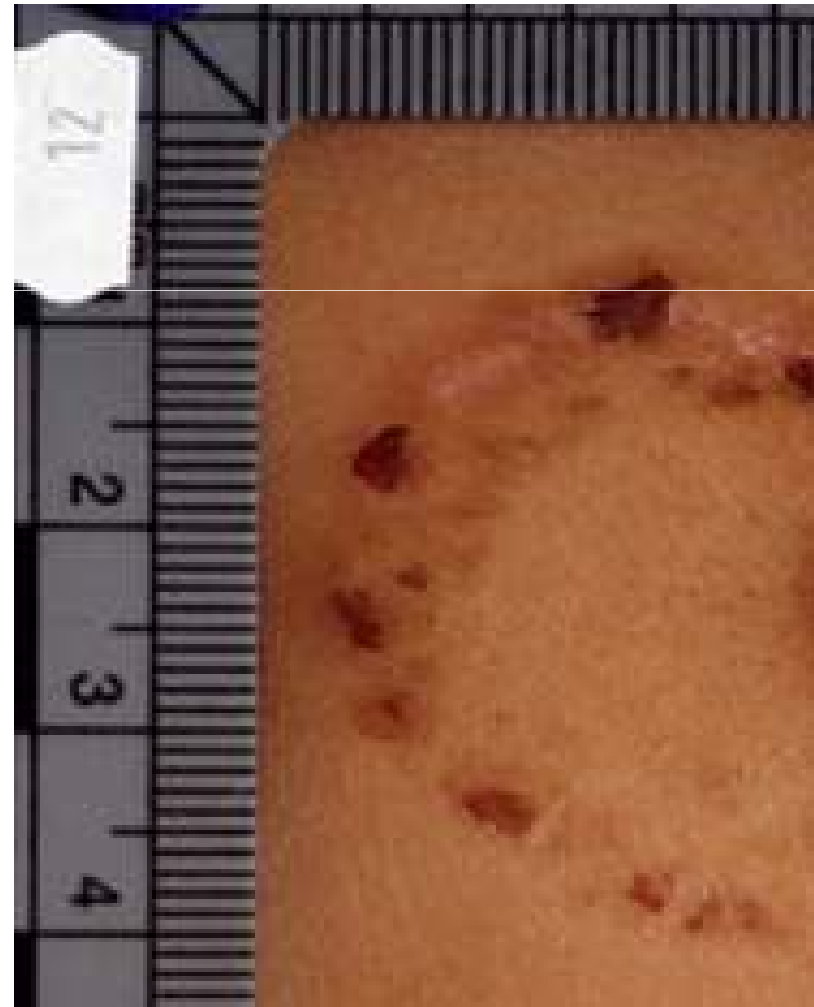
2- Obvious bruising with individual, discrete areas associated with teeth, skin remains intact, moderate forensic significance



- **3- Very obvious bruising with small lacerations associated with teeth on the most severe aspects of the injury, likely to be assessed as definite bite mark, high significance**



4- Numerous areas of laceration, with some bruising, some areas of the wound may be incised. Unlikely to be confused with any other injury mechanism and a high forensic significance.



- **5- Partial avulsion of tissue, some lacerations present indicating teeth as the probable cause of the injury. Moderate forensic significance.**



Methods for preservation the bite mark

- **Photograph with film pane at right angle to the bite and a scale is placed in the focal plane**
- **Swabs of the bite should be taken**
- **Impression of the bite is taken**



Figure 37.7: Sample bite taken on apple



Figure 37.10: Bite mark of suspect is taken



Figure 37.8: Impression is taken of the bite and cast is made



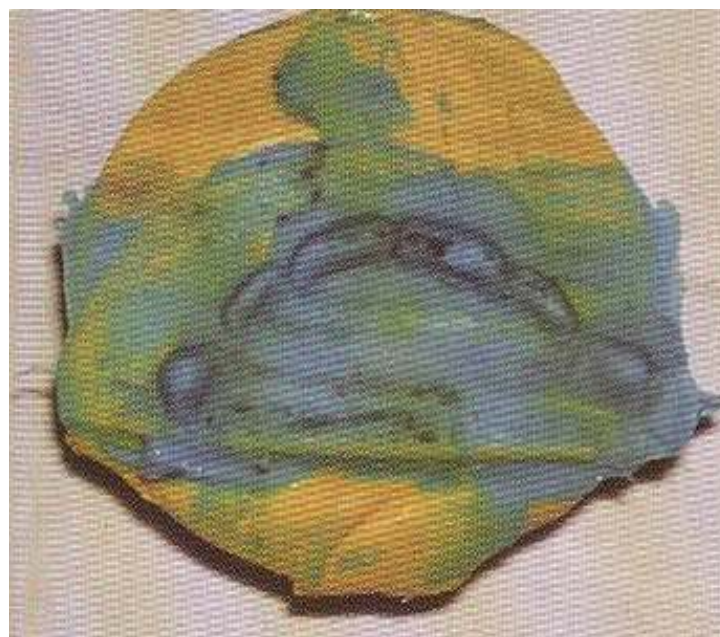
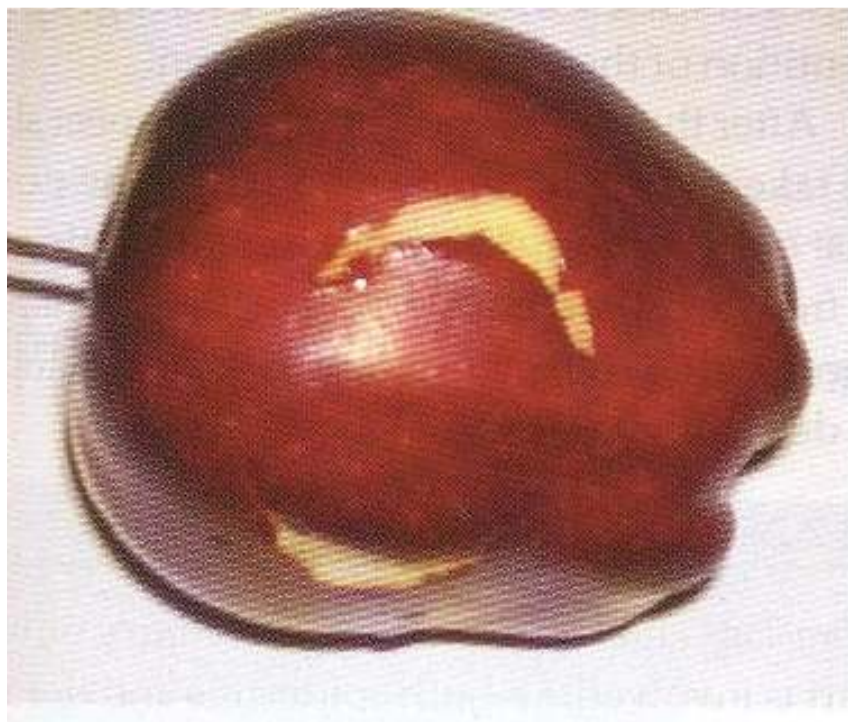
Figure 37.11: Positive replica of bite mark is made



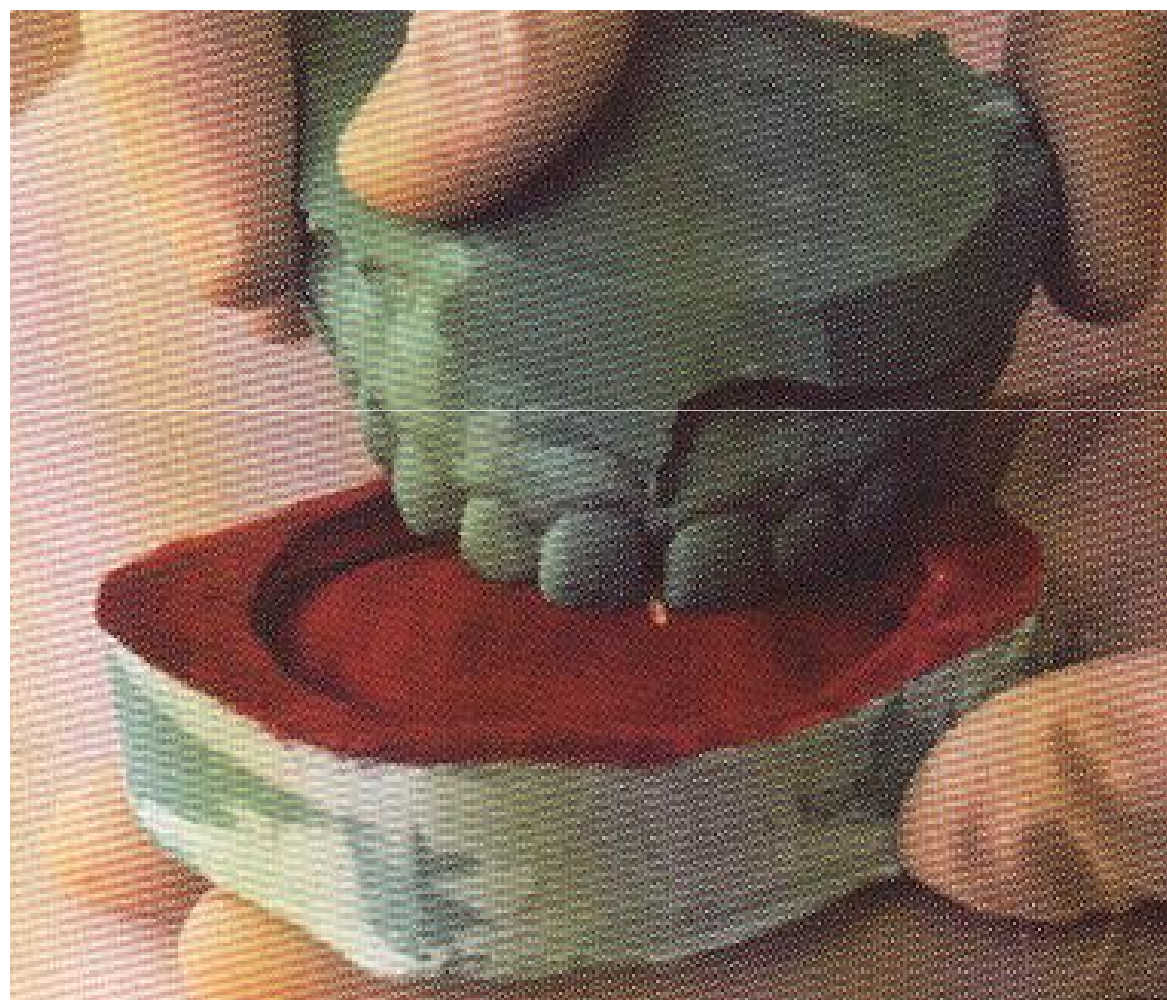
Figure 37.9: Study case is made



Figure 37.12: Cast of suspect is made









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